ABSTRACT

In one embodiment, a semiconductor device processing method, comprising the steps of: (a) using a patterned photoresist to form a structure having at least one edge; (b) prior to removal of the photoresist, forming a conforming layer from an organic compound and patterning the conforming layer to form at least one sidewall spacer which are self-aligned to the at least one edge; (c) performing a processing operation which is at least partially localized by the at least one sidewall spacer; and (d) removing the at least one sidewall spacer and the photoresist, wherein the conforming layer is formed via deposition of at least one organic compound selected from C_1 to C_8 alkanes, C_2 to C_8 alkenes, C_3 to C_8 cyclo-alkanes, C_4 to C_8 cyclo-alkenes, C_1 to C_8 fluoro-alkanes, C_2 to C_8 fluoro-alkenes, C_3 to C_8 cyclofluoro-alkanes, C_4 to C_8 cyclofluoro-alkenes, or mixtures thereof.